DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-027460
Date Inspected: 16-Apr-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1730
Location: Job Site

CWI Name:	See Below			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG/Tower

Summary of Items Observed:

At the start of the shift this Quality Assurance Lead Inspector (QAI) traveled to the SAS project site and observed the work and the inspection performed by American Bridge/Fluor Enterprises (AB/F) Quality Control (QC) personnel. The observations and inspections were performed as noted below:

A). This Quality Assurance Lead Inspector (QALI) assigned the QA Inspectors to the following, but not limited to the work station(s) listed , to observe the welding and the QC inspection of the following:

Joselito Lizardo-Tower, 9 Meter El. (Observed the welding, QC inspection of diaphragm plate to shear plate, drop-in plates, perimeter channels and fit lugs).

Art Peterson-OBG E12 & W12 (Observation of welding, inspection and testing of deck access holes), Mechanical Piping (Observation of welding and inspection of compressed air/utility water systems) and Drip Rail (Observation of welding and inspection at OBG field splice W10/W11).

Danny Smith-OBG W5(Observation of the welding and inspection of the deck access hole) and OBG E6 (Observation of welding and inspection of deck access hole and longitudinal stiffeners).

NOTE: See QA daily Weld Inspection Reports (WIR) and NDE reports for additional information and details.

Quality Assurance Lead Inspector (QALI) Summary

This QA Lead Inspector (QALI) observed the QA Inspector's Joselito Lizardo, Art Peterson and Danny Smith monitor the work performed by the QC inspectors at random intervals and also observed the QA Inspectors verify the welding parameters, the minimum preheat and the maximum interpass temperatures for compliance with the contract specifications. The QAI's utilized a Fluke 337 clamp meter to measure the electrical welding parameters, Tempil Heat Indicators and/or a Fluke 63 IR Thermometer for verifying the preheat and interpass temperatures. At the conclusion of the shift, this QA Lead Inspector discussed and reviewed the work performed by the QAI's in regards to the various observations and the verifications of the WPS's, consumables, welding parameters, preheat and interpass temperatures. The QAI observations of the QC inspection and verification of the welding parameters performed on this date appeared to comply with the contract specifications and no issues were noted.

Tower 13 Meter El.

The QAI also observed the Submerged Arc Welding (SAW) process of the diaphragm plate identified as Weld Number (WN): 109. The welding was performed by the welding operator James Zhen ID-6001 utilizing the Welding Procedure Specification (WPS) ABF-WPS-D15-4062-1 Rev. 0. The WPS was also used by the Quality Control (QC) Inspector, Fred Von Hoff, to monitor the welding and to perform QC inspection for compliance. The QAI observed Mr. Von Hoff verify the welding parameters and were noted as follows: 552 amps, 32.0 volts and a travel speed measured at 379 mm per minute The calculation of the heat input was also noted as 2.79 kj/mm by the QC inspector. The minimum preheat temperature of 140 degrees Celsius and the maximum interpass temperature of 230 degrees Celsius appeared to comply with the contract specifications.

This QAI also observed the repair welding of the Electro-Slag Weld (ESW) joint (shear plate) identified as "Q" and "K". These areas mark by the QC inspector, Jesse Cayabyab, while performing a Visual and Magnetic Particle Test (VT and MPT). The welding was performed by Richard Garcia, ID-5982 and Jeremy Dolman ID-5042 utilizing the Shielded Metal Arc Welding (SMAW) process as per the WPS ABF-WPS-D15-1000 Repair, Rev. 2. The WPS was also used by the QC inspector as a reference during the monitoring of the welding and QC verification of the welding parameters.

Summary of Conversations:

There were general conversations with Quality Control Lead Inspector, Bonifacio Daquinag, Jr., at the start of the shift regarding the location of welding, inspection personnel scheduled for this shift.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Reyes,Danny	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer